

# SAFETY DATA SHEET

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## SECTION 1) CHEMICAL PRODUCT AND SUPPLIER'S IDENTIFICATION

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**CAS Number:** 142-82-5  
**Product Name:** Heptane  
**Revision Date:** Nov 05, 2018 **Date Printed:** Nov 05, 2018  
**Version:** 2.0 **Supersedes Date:** Jul 03, 2017  
**Manufacturer's Name:** Thames River Chemical Corp.  
**Address:** 5230 Harvester Road Burlington, ON, CA, L7L 4X4  
**Emergency Phone:** CHEMTREC (800) 424-9300  
**Information Phone Number:** 905-681-5353  
**Fax:** 905-681-5377  
**Product/Recommended Uses:** For laboratory or industrial use only.

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## SECTION 2) HAZARDS IDENTIFICATION

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### Classification

Aspiration Hazard - Category 1  
Flammable Liquids - Category 2  
Skin Irritation - Category 2  
Specific Target Organ Toxicity -Single Exposure (Narcotic Effects) - Category 3

### Pictograms



### Signal Word

Danger

### Hazard Statements - Health

May be fatal if swallowed and enters airways  
Causes skin irritation  
May cause drowsiness or dizziness

### Hazard Statements - Physical

Highly flammable liquid and vapor

### Precautionary Statements - General

If medical advice is needed, have product container or label at hand.  
Keep out of reach of children.  
Read label before use.

### Precautionary Statements - Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.

Ground/bond container and receiving equipment.  
Use explosion-proof electrical, ventilating, lighting equipment.  
Use only non-sparking tools.  
Take action to prevent static discharges.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Wash/Wash hands thoroughly after handling.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.

#### Precautionary Statements - Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor.  
Do NOT induce vomiting.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
In case of fire: Use carbon dioxide, alcohol foam, water spray or dry chemical to extinguish.  
IF ON SKIN: Wash with plenty of water and soap.  
Specific treatment (see first-aid on the SDS).  
If skin irritation occurs: Get medical advice/attention.  
Take off contaminated clothing. And wash it before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Call a POISON CENTER or doctor, if you feel unwell.

#### Precautionary Statements - Storage

Store locked up.  
Store in a well-ventilated place. Keep cool.  
Store in a well-ventilated place. Store locked up.

#### Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/national/international regulation. Waste management should be in full compliance with national, regional and local laws.

#### Physical Hazards Not Otherwise Classified

No Data Available

#### Health Hazards Not Otherwise Classified

No Data Available

**Acute toxicity of 100% of the mixture is unknown**

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### SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

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CAS	Chemical Name	% By Weight
0064742-49-0!	VM & P NAPHTHA	100%

Contains: n-Heptane, CAS # 142-82-5

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### SECTION 4) FIRST-AID MEASURES

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#### Inhalation

Get medical advice/attention if you feel unwell or are concerned. If experiencing respiratory symptoms: Call a POISON CENTER/doctor. Remove source of exposure or move person to fresh air and keep comfortable for breathing. Eliminate all ignition sources if safe to do so. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.

#### Eye Contact

If eye irritation persists: Get medical advice/attention. If irritation occurs, cautiously rinse eyes with lukewarm, gently flowing water for 15 minutes, while holding the eyelids open.

**Skin Contact**

Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Store contaminated clothing under water and wash before re-use or discard. Rinse skin with water/shower and mild soap for 5 minutes or until product is removed.

**Ingestion**

Rinse mouth. Get medical advice/attention.

**Most Important Symptoms and Effects, Both Acute and Delayed**

No Data Available

**Indication of Any Immediate Medical Attention and Special Treatment Needed**

No Data Available

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**SECTION 5) FIRE-FIGHTING MEASURES**

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**Suitable Extinguishing Media**

Use foam, dry chemical, or carbon dioxide (CO<sub>2</sub>) to extinguish flames.

**Unsuitable Extinguishing Media**

Do not use straight stream of water.

**Specific Hazards in Case of Fire**

Many vapors are heavier than air. Containers may explode in fire. Many liquids are lighter than water. May form an ignitable vapor/air mixture in closed tanks or containers. Runoff to sewer may create fire or explosion hazard. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flashback. Vapors will spread along ground and collect in low or confined areas (sewers, basements, tanks). Polymer: May polymerize explosively when heated or involved in a fire. Fire will produce irritating gases.

**Fire-fighting Procedures**

Isolate immediate hazard area and keep unauthorized personnel out. Move undamaged containers from immediate hazard area if it can be done safely. Stop spill/release if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. Product has a low flashpoint: Use of water spray when fighting fire may be inefficient. Nitromethane and nitroethane: Do not use dry chemical extinguishers to control fires. Large Fire: Dike fire-control water for later disposal; do not scatter the material

**Special Protective Actions**

Wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

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**SECTION 6) ACCIDENTAL RELEASE MEASURES**

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**Emergency Procedure**

Isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ventilate closed spaces before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Evacuate and isolate hazard area and keep unauthorized personnel away. A vapor-suppressing foam may be used to reduce vapors.

**Recommended Equipment**

Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA).

**Personal Precautions**

Avoid breathing vapor or mist. Avoid contact with skin, eye or clothing.

**Environmental Precautions**

Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers. Dike far ahead of liquid spill for later disposal.

**Methods and Materials for Containment and Cleaning up**

Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean, non-sparking tools to collect absorbed material. Ventilate area after clean-up is complete.

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## SECTION 7) HANDLING AND STORAGE

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### General

Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. This product is not intended for human or animal consumption. All containers must be properly labelled.

### Ventilation Requirements

Use only with adequate ventilation to control air contaminants to their exposure limits. Report ventilation failures immediately. The use of local ventilation is recommended to control emissions near the source.

### Storage Room Requirements

Do not store large quantities of flammable liquids in the same storage cabinet. Store in dry, cool areas, out of direct sunlight and away from other sources of heat. Empty containers retain residue and may be dangerous. Keep away from incompatible materials (e.g. oxidizers). Store flammable and combustible liquids in areas that are cool, dry and well ventilated to reduce vapour concentrations. Never use plastic or glass containers for storing flammable liquids. Keep containers securely sealed when not in use. Bond and ground metal containers/cylinders when transferring. Avoid storing in direct sunlight or near other heat sources; eliminate all sources of ignition. Cabinets must be labelled; FLAMMABLE - KEEP FIRE AWAY. Avoid storing in basements. Protect containers against banging or other physical damage when storing, transferring, or using them.

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## SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Eye protection

Wear indirect-vent, impact and splash resistant goggles when working with liquids

### Skin Protection

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber.

### Respiratory Protection

If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.

### Appropriate Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	CANsmg	CANspmm	CANtmg	CANtppm	OSHA STEL (mg/m3)	OSHA STEL (ppm)	OSHA TWA (mg/m3)	OSHA TWA (ppm)	OSHA Carcinogen	OSHA Tables (Z1, Z2, Z3)	OSHA Skin designation	ACGIH STEL (mg/m3)
No applicable chemical	-	-	-	-	-	-	-	-	-	-	-	-

Chemical Name	ACGIH STEL (ppm)	ACGIH TWA (mg/m3)	ACGIH TWA (ppm)	ACGIH TLV Basis	ACGIH Carcinogen	ACGIH Notations
No applicable chemical	-	-	-	-	-	-

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## SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

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## Physical and Chemical Properties

Density	5.71 lb/gal
Specific Gravity	0.68
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Appearance	clear, colourless liquid
Odor Description	gasoline-like odour
Odor Threshold	N/A
pH	N/A
Melting/Freezing Point	-20 °C!
Low Boiling Point	83 °C!
High Boiling Point	105 °C!
Flash Point	< 0 °C!
Vapor Pressure	6 kPa
Vapor Density	N/A
Evaporation Rate	N/A
Upper Explosion Level	N/A
Lower Explosion Level	N/A
Water Solubility	3 mg per liter
Coefficient Water/Oil	N/A
Viscosity	0.5-1.2 mm <sup>2</sup> /s (at 20 °C)

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## SECTION 10) STABILITY AND REACTIVITY

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### Reactivity

No Data Available

### Stability

Stable under normal storage and handling conditions.

### Conditions to Avoid

Avoid heat, sparks, open flames and other ignition sources.

### Hazardous Reactions/Polymerization

Hazardous polymerization will not occur.

### Incompatible Materials

Strong oxidizers.

### Hazardous Decomposition Products

No Data Available

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## SECTION 11) TOXICOLOGICAL INFORMATION

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### Likely Route of Exposure

Inhalation, ingestion, skin absorption

### Acute Toxicity

Naphtha (petroleum), hydrotreated light  
LD50, Oral Rat: LD50 > 5,000 mg/kg bw (rat)  
LC50, Inhalation (4h) Rat: > 20 mg/L air (male/female)  
LD50, Dermal Rat (male): >2,000 mg/Kg bw

No Data Available

**Aspiration Hazard**

May be fatal if swallowed and enters airways

**Carcinogenicity**

No Data Available

**Germ Cell Mutagenicity**

No Data Available

**Reproductive Toxicity**

No Data Available

**Respiratory/Skin Sensitization**

No Data Available

**Serious Eye Damage/Irritation**

No Data Available

**Skin Corrosion/Irritation**

Causes skin irritation

**Specific Target Organ Toxicity - Repeated Exposure**

No Data Available

**Specific Target Organ Toxicity - Single Exposure**

May cause drowsiness or dizziness

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**SECTION 12) ECOLOGICAL INFORMATION**

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**Toxicity**

acute toxicity  
Fish: LL50 (96 h) ~ 10 mg/l  
Aquatic Invertebrates: LC50 (48h) <= 10 mg/l  
Algae: EL50 (72 h) <= 10 mg/l  
Microorganisms: LL50 (72 h) 15 mg/l

Material -- Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

**Mobility in Soil**

No Data Available

**Bio-accumulative Potential**

No Data Available

**Persistence and Degradability**

No Data Available

**Other Adverse Effects**

No Data Available

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**SECTION 13) DISPOSAL CONSIDERATIONS**

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**Waste Disposal**

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Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, provincial and local laws.

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## SECTION 14) TRANSPORT INFORMATION

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### U.S. DOT Information

UN number: UN1206  
Proper shipping name: Heptanes (N-HEPTANE)  
Hazard class: 3  
Packaging group: II  
Hazardous substance (RQ): No Data Available  
Toxic-Inhalation Hazard: No Data Available  
Marine Pollutant: No Data Available  
Note / Special Provision: No Data Available

### Transport Canada Information

UN number: UN1206  
Proper shipping name: Heptanes (N-HEPTANE)  
Hazard class: 3  
Packaging group: II  
Marine Pollutant: No Data Available  
Transport in bulk (according to Annex II of MARPOL 73/78): No Data Available  
Note / Special Provision: Note / Special Provision

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## SECTION 15) REGULATORY INFORMATION

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CAS	Chemical Name	% By Weight	Regulation List
No applicable CAS	No applicable chemical	-	-

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## SECTION 16) OTHER INFORMATION

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### Glossary

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG- Canadian Transportation of Dangerous Goods; CANsmg or CANspmm - Canadian Short Term Exposure Level in mg/L or in ppm; CANtmg or CANTppm - Canadian Time Weighted Average in mg/L or in ppm; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center(US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self Contained Breathing Apparatus; STEL-Short Term Exposure Limit; TCEQ Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

**Version 2.0:**

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